

Missouri Department of Natural Resources

Total Maximum Daily Load Information Sheet

Rocky Fork

Water Body Segment at a Glance:

County: Boone
Nearby Cities: Columbia
Length of impairment: 0.5 mile
Pollutant: Non-volatile Suspended Sediment (NVSS)
Source: Finger Lakes Abandoned Mine Land Site



TMDL Priority Ranking: TMDL completed 2003

Description of the Problem

Beneficial uses of Rocky Fork

- Livestock and Wildlife Watering
- Protection of Warm Water Aquatic Life
- Human Health Protection (Fish Consumption)

Use that is impaired

- Protection of Warm Water Aquatic Life

Standards that apply

- All waterbodies in Missouri are protected by the *general* criteria (standards) contained in Missouri's WQS, 10 CSR20-7.031(3). These criteria (also called *narrative* criteria) list substances that all waters "shall be free from". The criteria that apply to Rocky Fork are (A), (C) and (G), and they state:
 - (A) Waters shall be free from substances in sufficient amounts to cause the formation of putrescent, unsightly or harmful bottom deposits or prevent full maintenance of beneficial uses.
 - (C) Waters shall be free from substances in sufficient amounts to cause unsightly color or turbidity, offensive odor or prevent full maintenance of beneficial uses.
 - (G) Waters shall be free from physical, chemical or hydrologic changes that would impair the natural biological community.

Background Information

Some waterbodies that were listed for sediment in 1998, such as Rocky Fork, are now being listed for Non-Volatile Suspended Solids (NVSS). This change was made to better distinguish between mineral

solids (soil or mineral particles) coming from soil erosion or erosion of mine waste materials or stockpiles (NVSS) and organic solids coming from wastewater treatment plants (Volatile Suspended Solids or VSS).

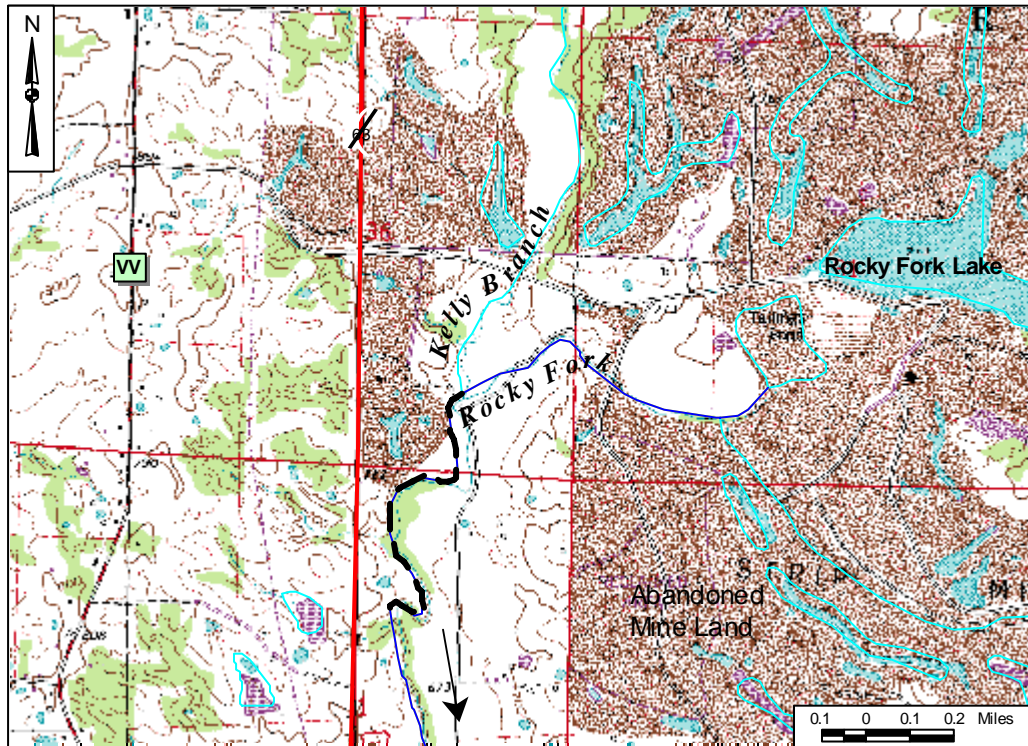
The NVSS in Rocky Fork are primarily eroded soil particles. Soil erosion problems at the Finger Lakes area have contributed to an excess of sand in a portion of Rocky Fork. Deposition of sand and other fine materials in the bottom of the stream can bury better aquatic habitat and smother aquatic organisms or fish eggs.

Several hundred acres of strip mined land about six miles north of Columbia was acquired by the Department of Natural Resources in 1974 and named Finger Lakes State Park. The park topography consists of small, steep-sided hills with many small ponds in between. This has made the area a favorite spot for recreational off road vehicle (ORV) use. Immediately south of the State Park, Kelley Branch joins Rocky Fork, and while this portion of the stream is not directly impaired by ORV traffic, it shows evidence of heavy sedimentation from Kelley Branch. About one-half mile of Rocky Fork has impaired aquatic habitat due to excessive sedimentation. Sedimentation harms aquatic life by smothering the stream substrate (bottom), the aquatic invertebrate animals that live there and fish eggs.

The park management plan establishes designated trails along and across Kelley Branch, builds “hardened” stream crossings, and restores and protects the riparian border along the stream. An educational component will be included to gain park users’ support and cooperation. The work is ongoing and completion is expected by December 2004. The U.S. Environmental Protection Agency approved the Kelley Branch and Rocky Fork TMDL on December 19, 2003. That document outlined best management practices in the state park management plan designed to address the sedimentation problem.

More details about Kelley Branch may be found in the Kelley Branch TMDL Information Sheet. See a map of the area on the next page.

Map Showing Location of Impaired Portion of Rocky Fork



--- Impaired Segment → Direction of Flow

For more information call or write:

Missouri Department of Natural Resources

Water Protection Program

P.O. Box 176, Jefferson City, MO 65102-0176

1-800-361-4827 or (573) 751-1300 office or (573) 522-9920 fax

Program Home Page: www.dnr.mo.gov/env/wpp/index.html